

Abstract

A temperature compensating device comprises one or more columnar thermistors embedded within a substrate. Because the thermistors are substantially covered by the substrate, they are less susceptible to changes in air temperature and to temperature gradients. Moreover, within the substrate the thermistors can be made thicker and smaller in lateral area, permitting more compact, less expensive devices that exhibit improved high frequency performance. The devices can advantageously be fabricated using the low temperature co-fired ceramic (LTCC) process.